

IN THE CLAIMS:

Please amend the claims as follows.

1. (Currently Amended) An extensible rule-based technique for optimizing predicated code, comprising:

if-converting an abstract internal representation; [[and]]

~~mapping~~transforming the if-converted representation to a machine representation, wherein the transformation includes eliminating predicates from the if-converted representation; and

optimizing the machine representation based on a combination of a predetermined cover analysis and a predetermined replacement pattern such that a redundant instruction in the machine representation is eliminated.

2. (Canceled)

3. (Original) The technique of claim 1, the eliminating of predicates comprising:
eliminating a predicate defining instruction by interpretation.

4. (Original) The technique of claim 1, the eliminating of predicates comprising:
eliminating a guarding predicate of a safe instruction by speculation.

5. (Original) The technique of claim 1, the eliminating of predicates comprising:
eliminating a guarding predicate of an unsafe instruction by compensation.

6. (Original) The technique of claim 1, the eliminating of predicates comprising:
eliminating a guarding predicate of an unsuitable instruction by reverse
if-conversion.

7-9. (Canceled)

10. (Currently Amended) An apparatus for optimizing predicate code, comprising:
- means for if-converting an abstract internal representation; [[and]]
 - means for ~~mapping~~transforming the if-converted~~sion~~ representation to machine representation, wherein the transformation includes eliminating predicates from the if-converted representation; and
 - means for optimizing the machine representation based on a combination of a predetermined cover analysis and a predetermined replacement pattern such that a redundant instruction in the machine representation is eliminated.
11. (Canceled)
12. (Original) The apparatus of claim 10, the eliminating of predicates comprising:
- means for eliminating a predicate defining instruction by interpretation.
13. (Original) The apparatus of claim 10, the eliminating of predicates comprising:
- means for eliminating a guarding predicate of a safe instruction by speculation.
14. (Original) The apparatus of claim 10, the eliminating of predicates comprising:
- means for eliminating a guarding predicate of an unsafe instruction by compensation.
15. (Original) The apparatus of claim 10, the eliminating of predicates comprising:
- means for eliminating a guarding predicate of an unsuitable instruction by reverse if-conversion.
16. (Canceled)
17. (Currently Amended) An extensible rule-based technique for optimizing predicated code, comprising:
- if-converting an abstract internal representation;

~~mapping~~transforming the if- converted~~ion~~ representation to a machine
representation, wherein the transformation includes eliminating predicates
from the if-converted representation,[[;]]
~~eliminating predicates from the mapped if conversion,~~
wherein the eliminating of predicates, comprises
eliminating a predicate defining instruction by interpretation;
eliminating a guarding predicate of a safe instruction by speculation;
eliminating a guarding predicate of an unsafe instruction by compensation;
eliminating a guarding predicate of an unsuitable instruction by reverse
if-conversion; and
optimizing the machine representation based on a combination of a predetermined
cover analysis and a predetermined replacement pattern such that a
redundant instruction in the machine representation is eliminated.

18-23. (Canceled)